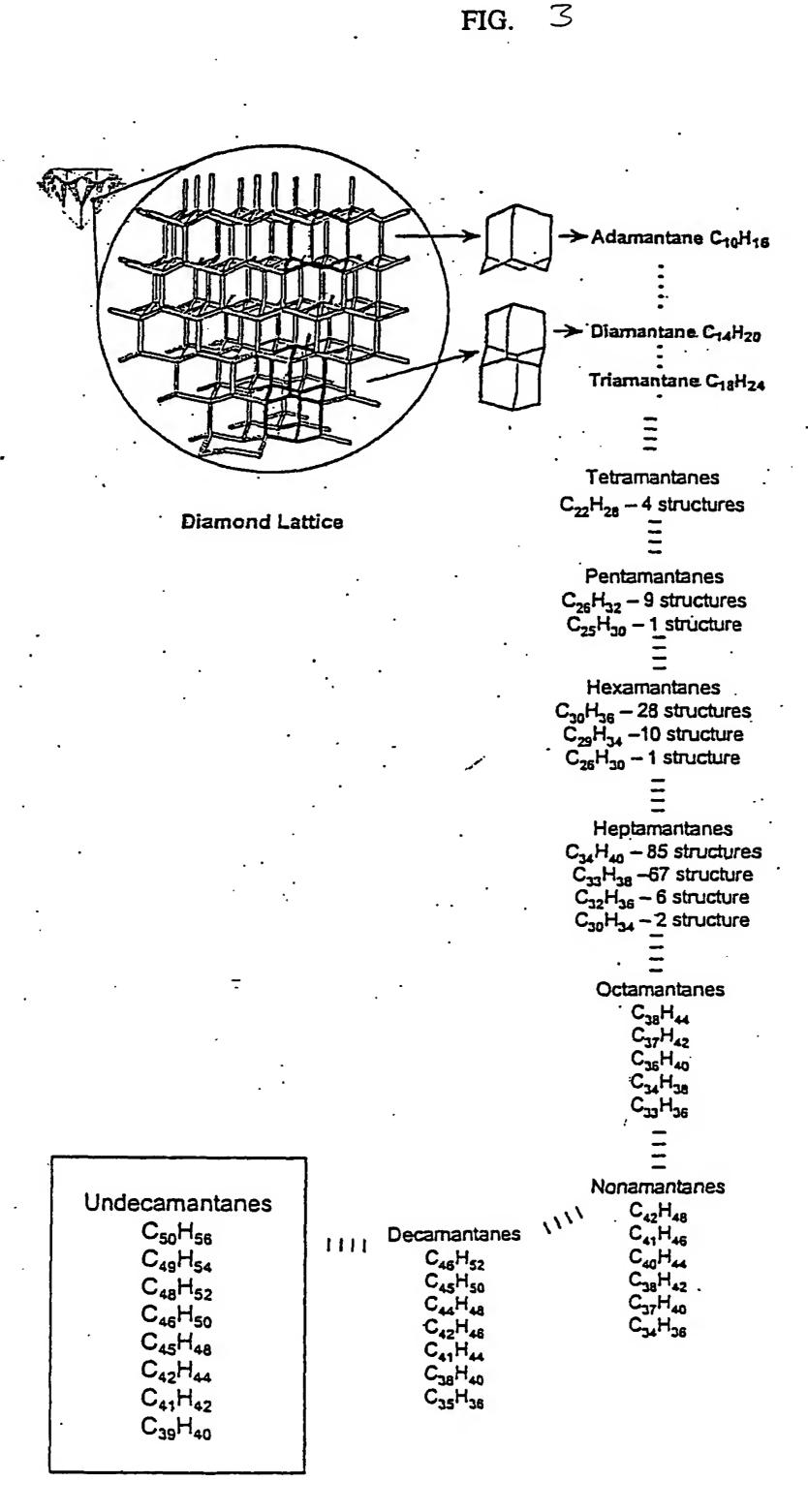


TITLE: HETEROATOM-CONTAINING DIAMONDOID TRANSISTORS

TITLE: HETEROATOM-CONTAINING DIAMONDOID TRANSISTORS

INVENTORS: SHENGGAO LIU, ET AL. APPLICATION SERIAL NO: UNASSIGNED ATTORNEY DOCKET NO: 005950-833

SHEET 3 of 19

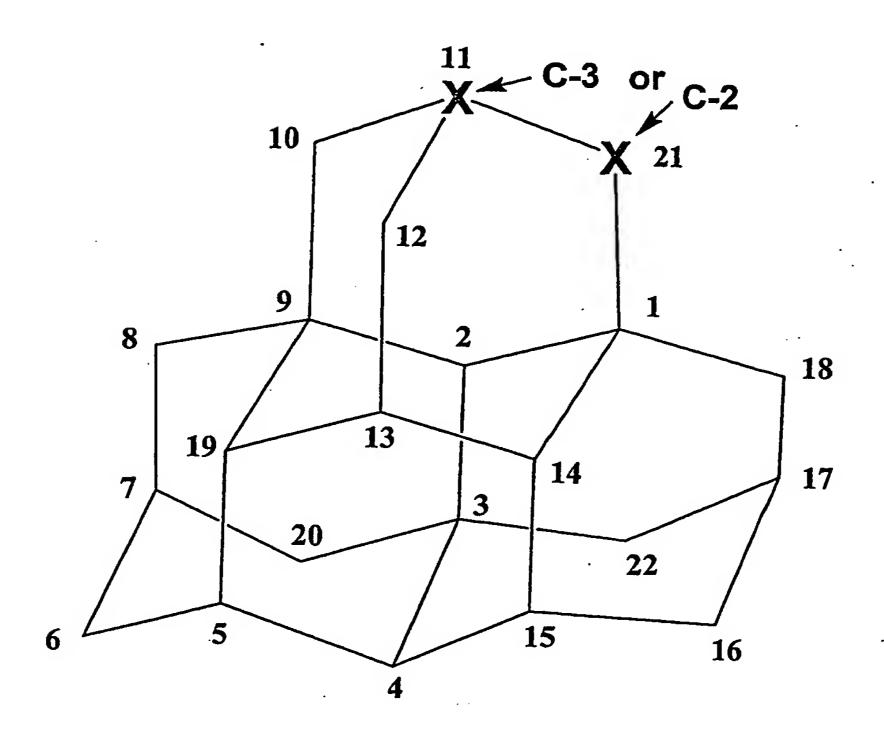


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Inventors: Shenggao Liu, et al. Application Serial No: Unassigned Attorney Docket No: 005950-833

FIG. 4A

SHEET 4 of 19

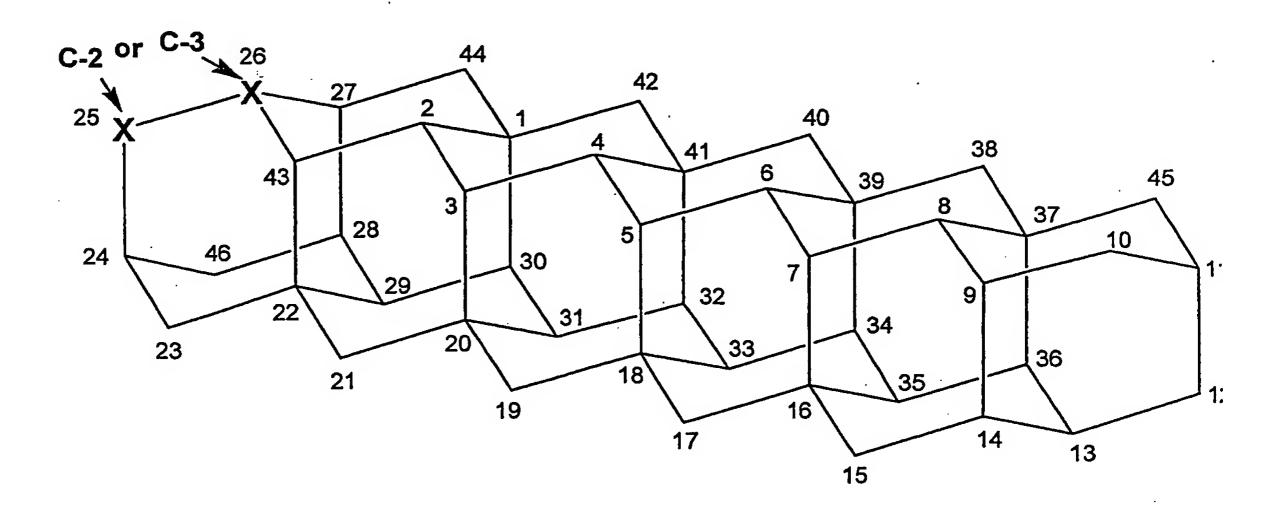


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Inventors: Shenggao Liu, et al. Application Serial No: Unassigned Attorney Docket No: 005950-833

SHEET 5 of 19

FIG. 4B

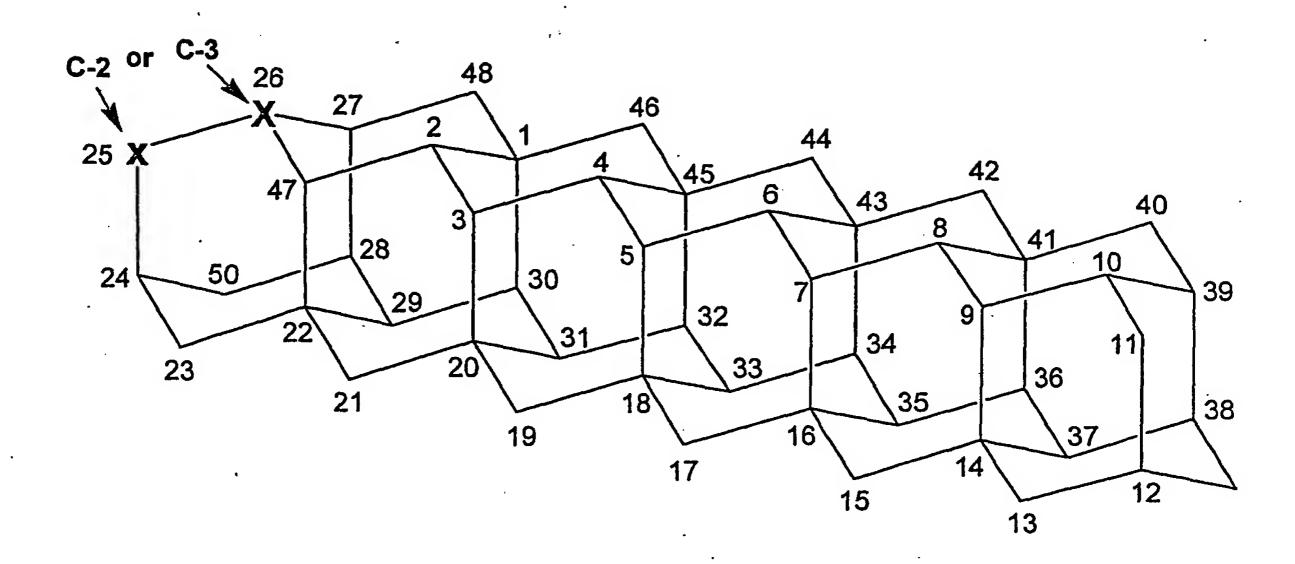


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Inventors: Shenggao Liu, et al. Application Serial No: Unassigned Attorney Docket No: 005950-833

SHEET 6 of 19

FIG. 4C

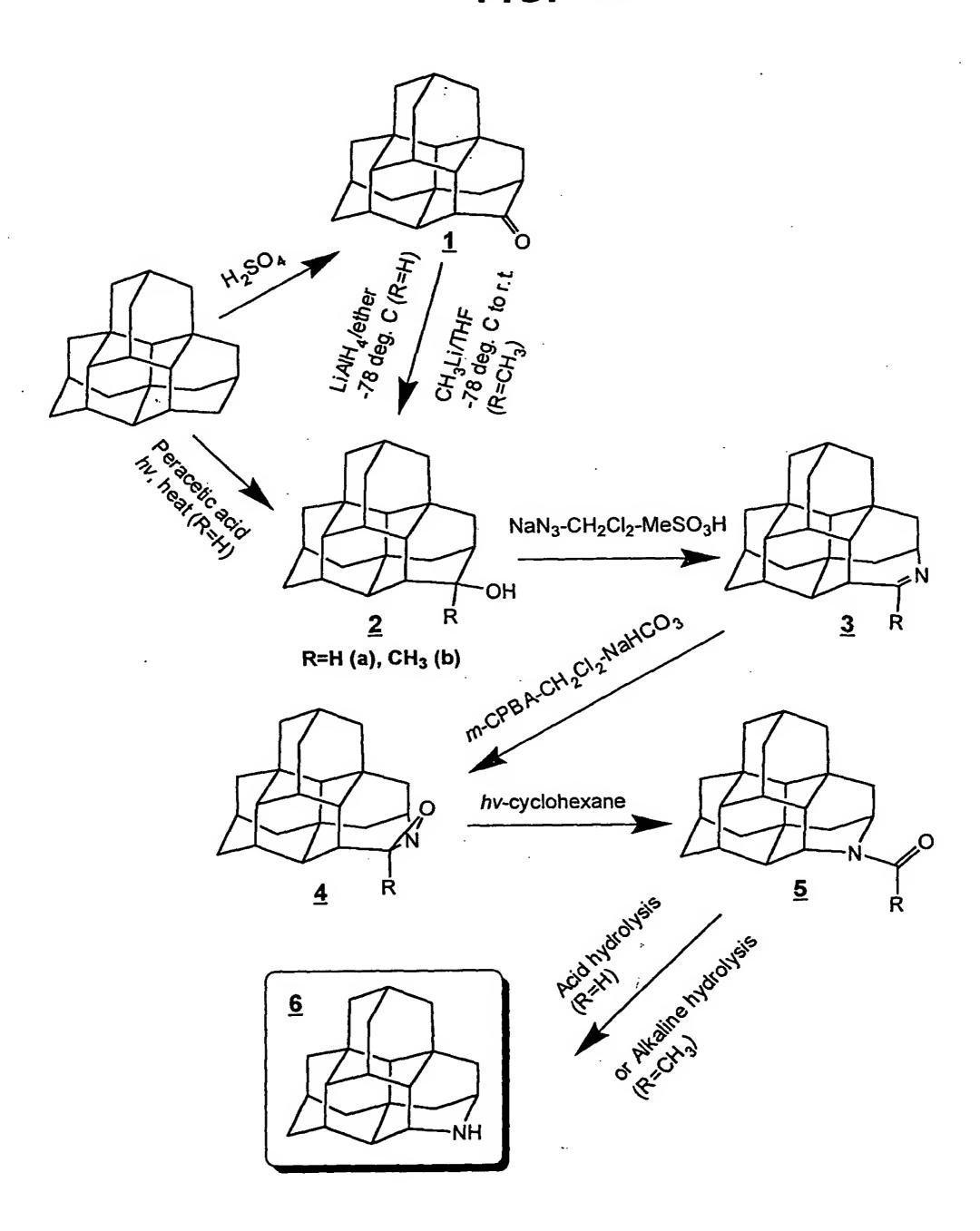


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INVENTORS: SHENGGAO LIU, ET AL. APPLICATION SERIAL NO: UNASSIGNED ATTORNEY DOCKET NO: 005950-833

FIG. 5A

SHEET 7 of 19

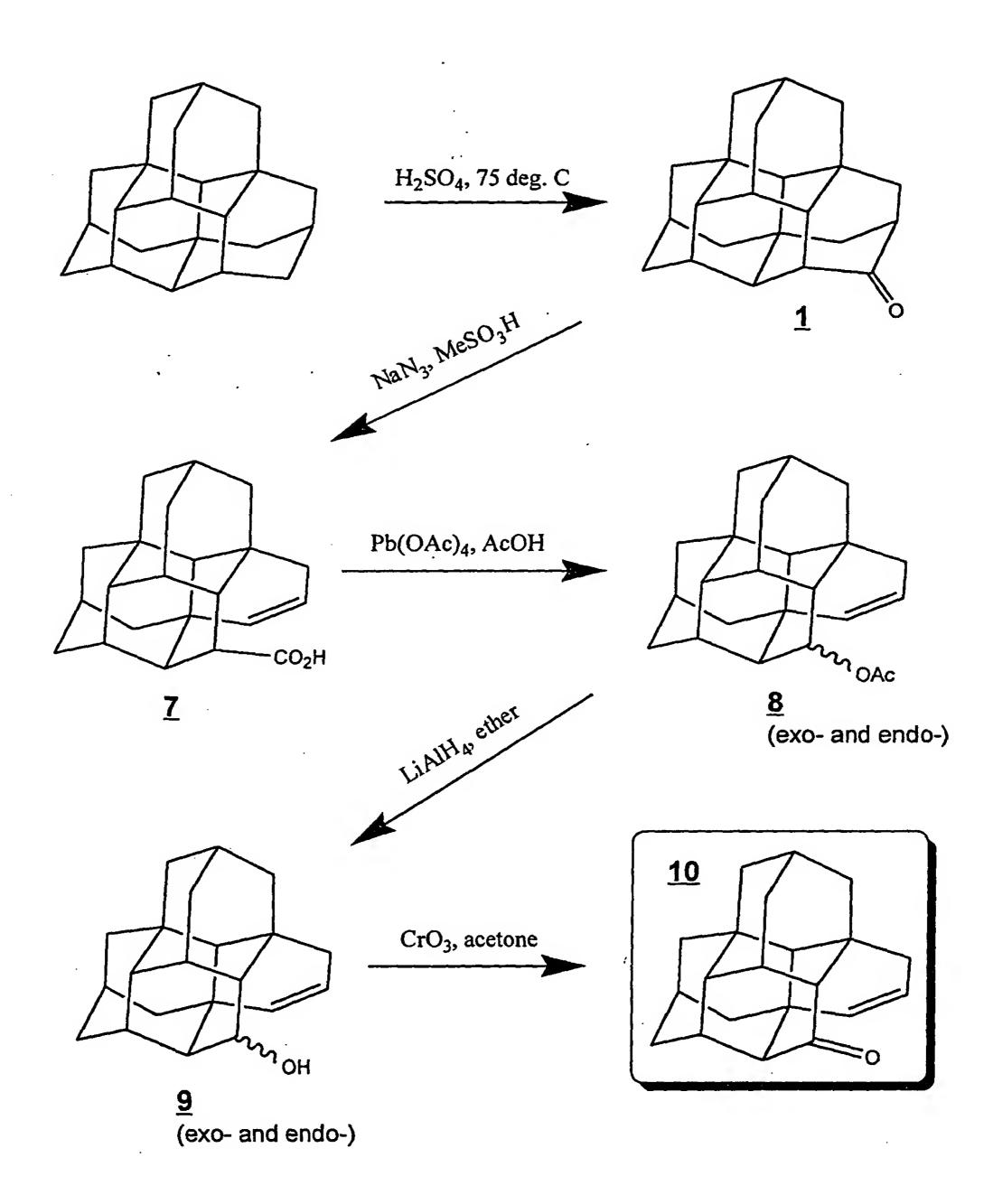


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Inventors: Shenggao Liu, et al. Application Serial No: Unassigned Attorney Docket No: 005950-833

SHEET 8 of 19

FIG. 5B

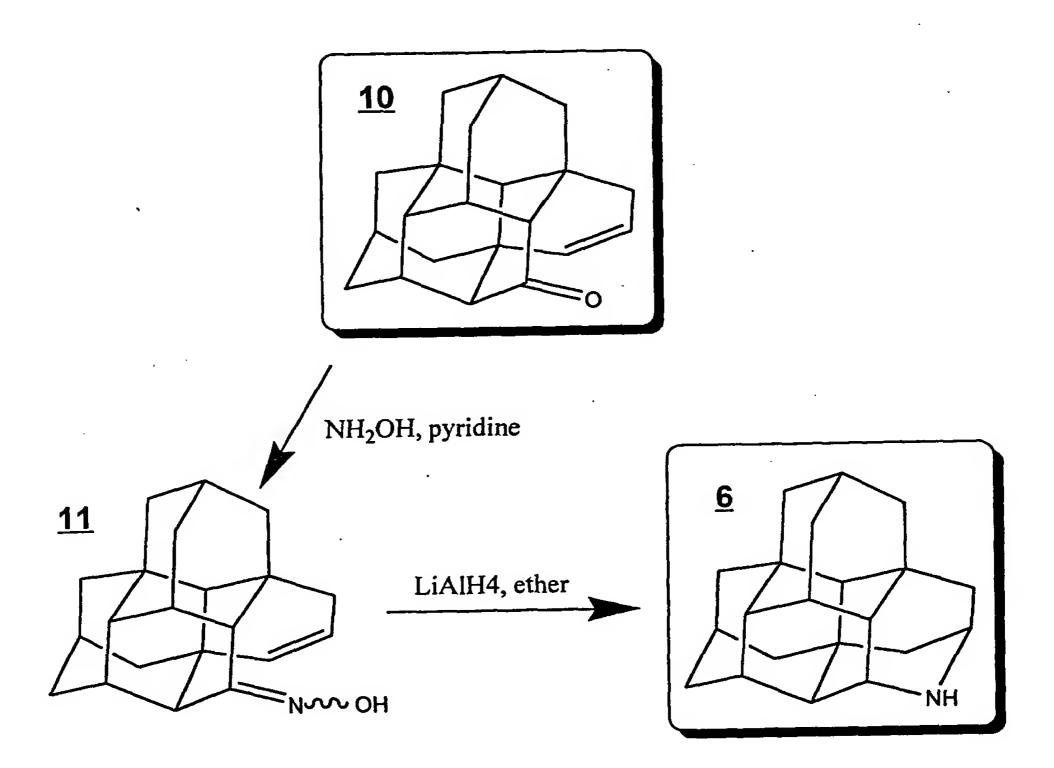


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INVENTORS: SHENGGAO LIU, ET AL. APPLICATION SERIAL NO: UNASSIGNED ATTORNEY DOCKET NO: 005950-833

SHEET 9 of 19

FIG. 5B (Cont.)



TITLE: HETEROATOM-CONTAINING DIAMONDOID TRANSISTORS

Inventors: Shenggao Liu, et al. Application Serial No: Unassigned Attorney Docket No: 005950-833

SHEET 10 of 19

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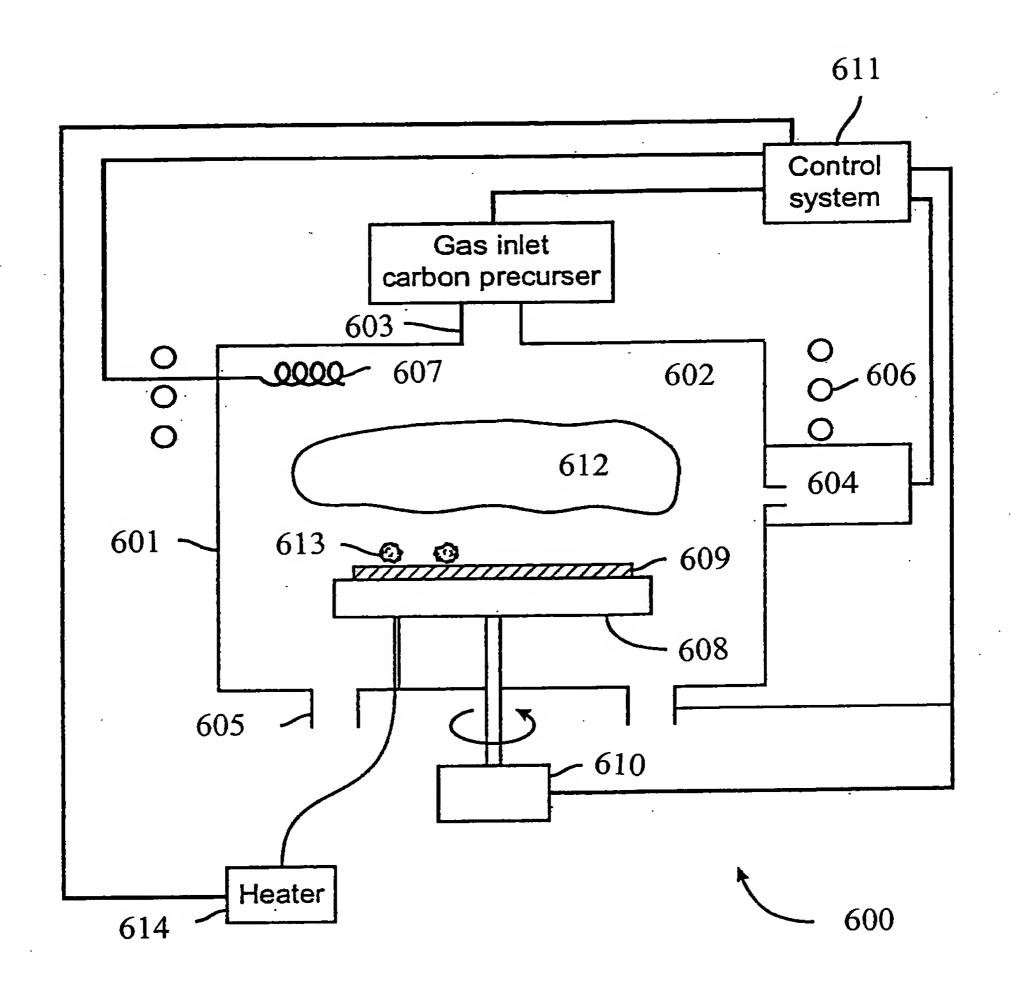
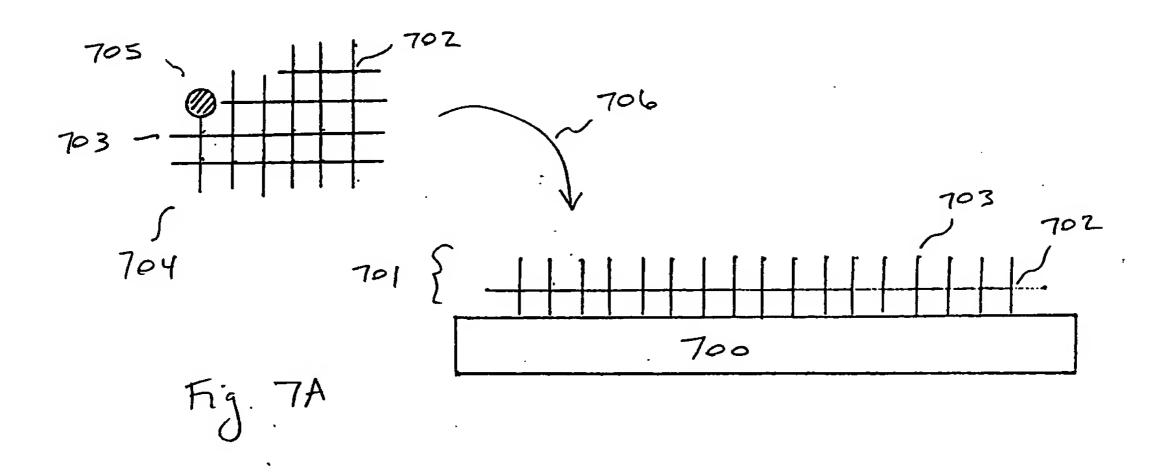


FIG. 6

TITLE: HETEROATOM-CONTAINING DIAMONDOID TRANSISTORS

INVENTORS: SHENGGAO LIU, ET AL. APPLICATION SERIAL NO: UNASSIGNED ATTORNEY DOCKET NO: 005950-833

SHEET 11 of 19



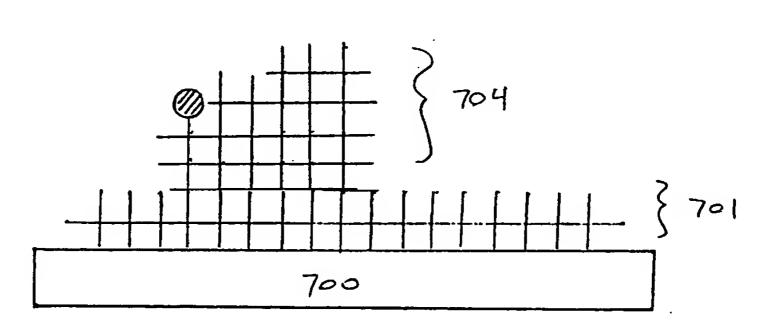
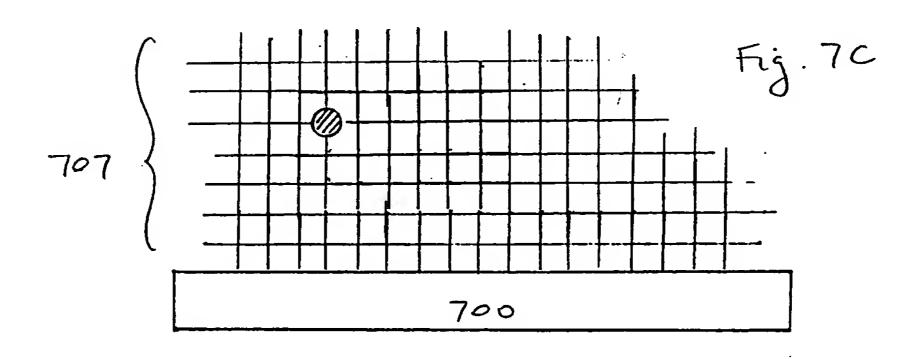


Fig. 713

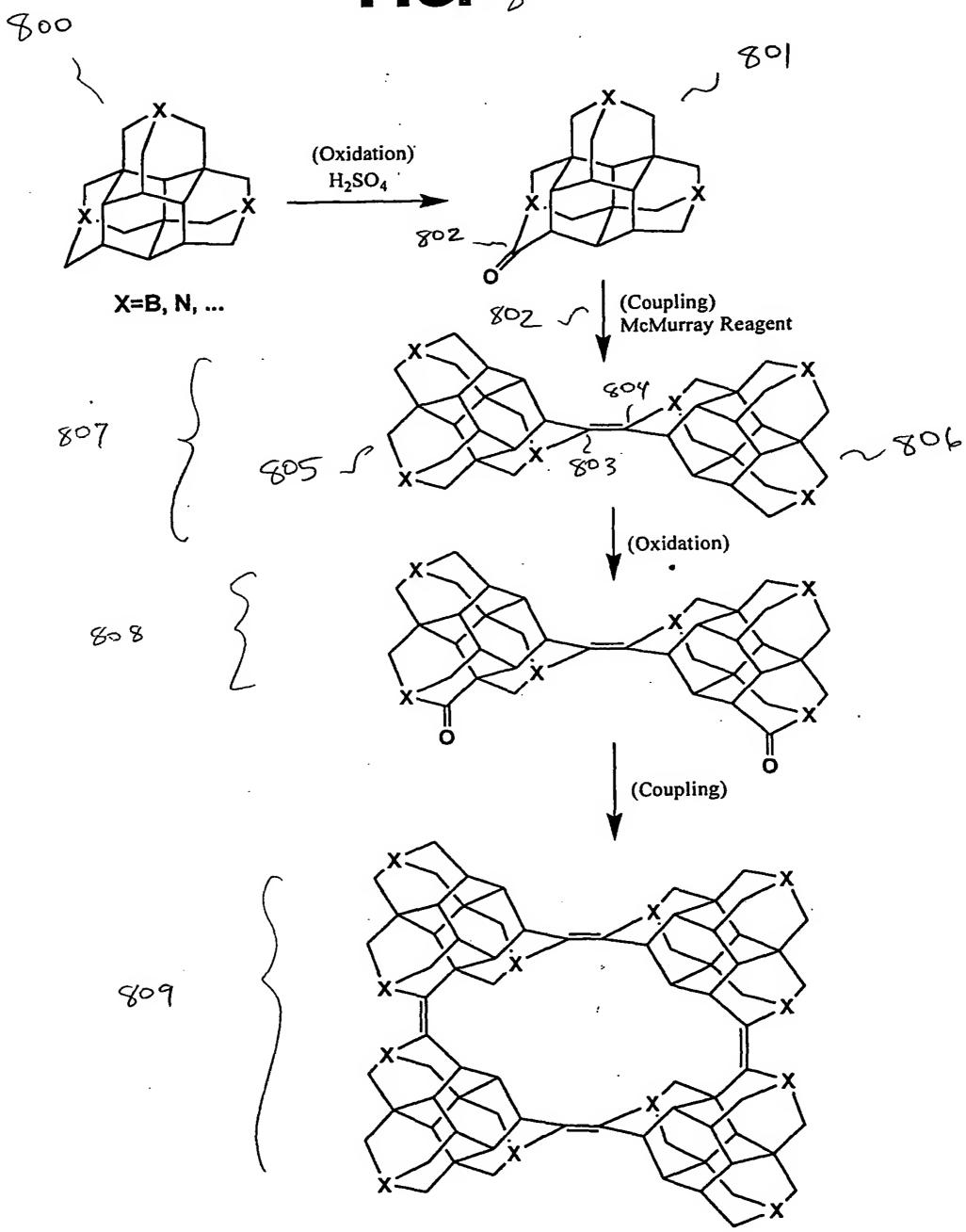


TITLE: HETEROATOM-CONTAINING DIAMONDOID TRANSISTORS

Inventors: Shenggao Liu, et al. Application Serial No: Unassigned Attorney Docket No: 005950-833

SHEET 12 of 19





POLYACETYLENE

FIG. 9 A

POLYPYRROLE

FIG. 9 C

POLYTHIOPHENE

FIG. 9 E

$$CH_3$$
 CH_3

POLY-3 METHYI THIOPHENE

FIG. 9G

POLYISOTHIANAPHENE

FIG. 91



POLYPARAPHEMYLENE

FIG. 9 B

POLYPARAPHEMYLENE SULPHIDE

FIG. 9 D

POLYPARAPHEMYLENE VINYLENE

FIG. 9 F

POLYCARBAZOLE

FIG. 9H

POLY(1,6-HEPTADIYNE)

FIG. 9 J

SHEET 13 of 19

APPLICATION FILING DATE: FILED HEREWITH
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APPLICATION SERIAL NO: UNASSIGNED
ATTORNEY DOCKET NO: 005950-833 SHE

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TITLE: HETEROATOM-CONTAINING DIAMONDOID TRANSISTORS

Inventors: Shenggao Liu, et al. Application Serial No: Unassigned Attorney Docket No: 005950-833

SHEET 14 of 19

POLY-3 ALKYLTHIOPHENE

FIG. 9 K

FIG. 9 L.

POLYQUINOLINE

POLY-3 ALKYLSULFONATE

$$+$$
 S
 R
 n

FIG. 9 M

$$+ \left\langle -\right\rangle - \dot{\mathbf{n}} - \left\langle -\right\rangle - \dot{\mathbf{n}} - \left\langle -\right\rangle - \dot{\mathbf{n}} + \left\langle -\right\rangle -$$

POLYANILINE

FIG. 9 N

TITLE: HETEROATOM-CONTAINING DIAMONDOID TRANSISTORS

INVENTORS: SHENGGAO LIU, ET AL.
APPLICATION SERIAL NO: UNASSIGNED
ATTORNEY DOCKET NO: 005950-833

SHEET 15 of 19

1000 1002 100 (1003 1005 1006 ~1008 1007

Fig. 10

TITLE: HETEROATOM-CONTAINING DIAMONDOID TRANSISTORS

Inventors: Shenggao Liu, et al. Application Serial No: Unassigned Attorney Docket No: 005950-833

SHEET 16 of 19

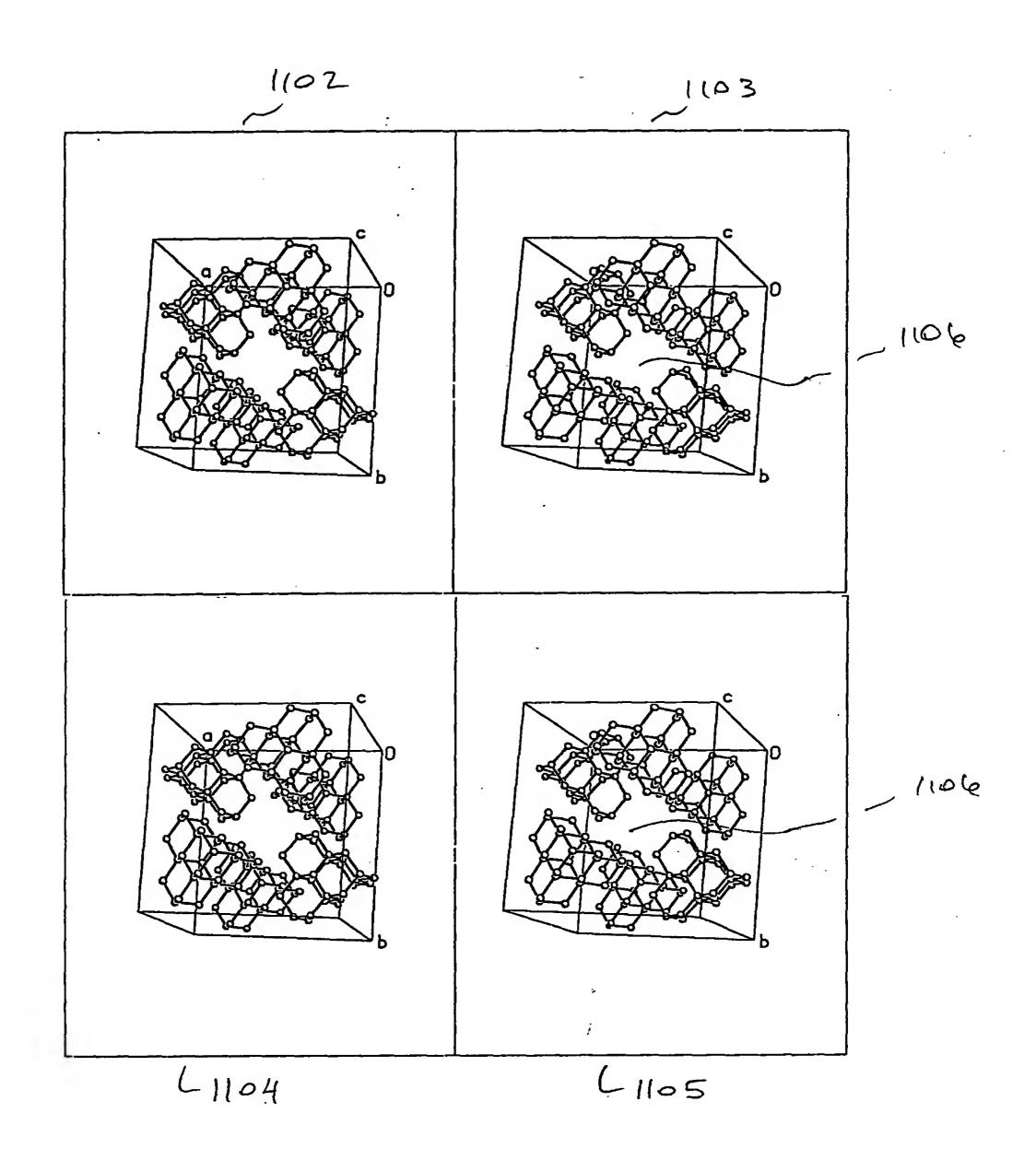


Fig. 11

TITLE: HETEROATOM-CONTAINING DIAMONDOID TRANSISTORS

INVENTORS: SHENGGAO LIU, ET AL.
APPLICATION SERIAL NO: UNASSIGNED
ATTORNEY DOCKET NO: 005950-833

SHEET 17 of 19

FIG. 12

|20|
$$\rightarrow$$
 |203 | \rightarrow |203 | \rightarrow |204 | \rightarrow |205 | \rightarrow |207 | \rightarrow |

TITLE: HETEROATOM-CONTAINING DIAMONDOID TRANSISTORS

Inventors: Shenggao Liu, et al. Application Serial No: Unassigned Attorney Docket No: 005950-833

SHEET 18 of 19

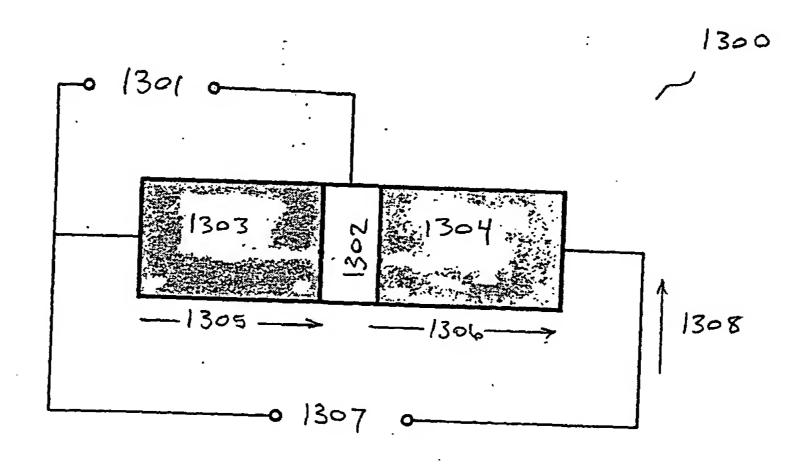


Fig. 13A

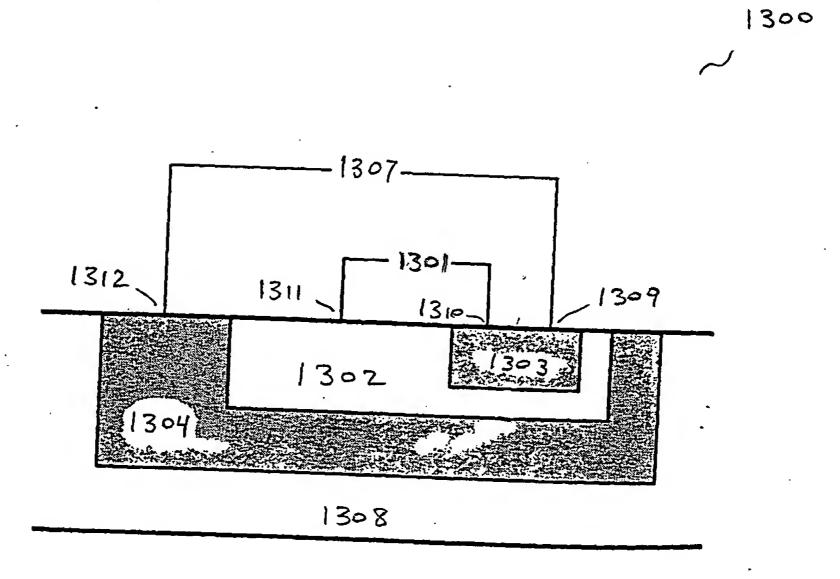


Fig. 13B

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INVENTORS: SHENGGAO LIU, ET AL. APPLICATION SERIAL NO: UNASSIGNED

ATTORNEY DOCKET NO: 005950-833 SHEET 19 of 19

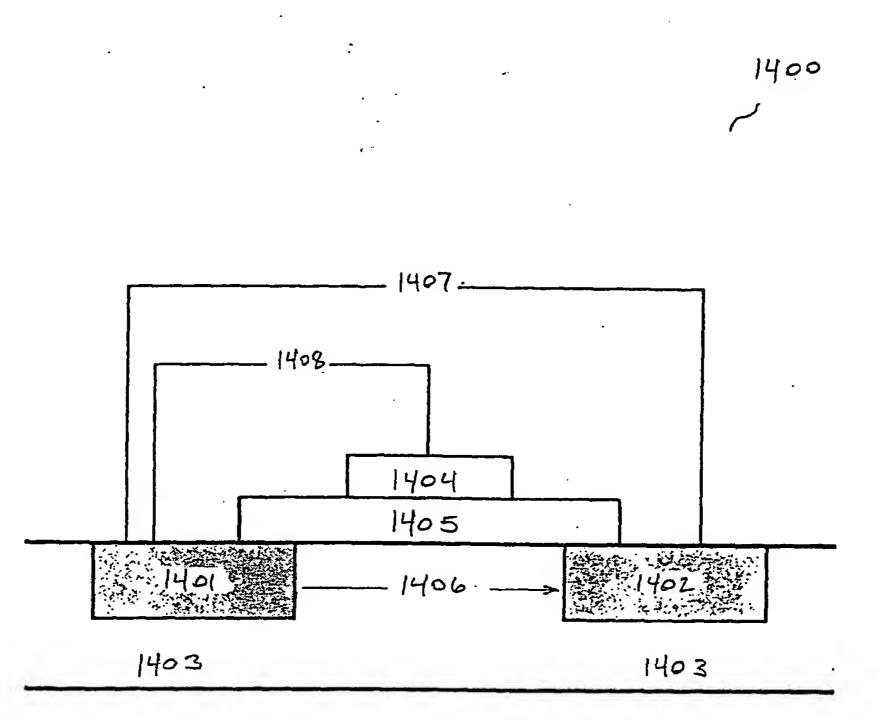


Fig. 14